

**Key Issues and
Questions in
English Language Learners
Literacy Research**

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This project is third in a set of three by the International Reading Association and the National Institute of Child Health and Human Development to look at key issues in reading and make recommendations to the field for further investigation.

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Key Issues and Questions in ELL Literacy Research

English-Language Learners (ELL) have been a part of the American educational system since the first school door opened in Jamestown almost 400 years ago. Today, one in five students speaks a language other than English in his or her home. As awareness of the importance of ELL issues has increased, research on this topic has gone from a few very specific studies to requests from almost every school system in the nation for more and better information on improving ELL literacy instruction. This paper is one of a wide-ranging set of activities organized by the sponsoring organizations to find answers to the complex question of how we can help more children become literate in English.

In 2006 and 2007, the International Reading Association, the National Institute of Child Health and Human Development, the Center for Applied Linguistics, the National Association of Bilingual Education, the National Institute for Literacy, the Office of English Language Acquisition (U.S. Department of Education), and Teachers of English to Speakers of Other Languages convened to develop a set of recommended issues and questions for researchers to consider in the next three to five years. This paper is a result of that work. It represents the collective efforts of more than 30 individual scholars from many different institutions and organizations. The work represents a wide-ranging consensus; no one individual or organization has been asked to endorse the separate observations or recommendations. Rather, they have been asked if this a good set of questions and an accurate reflection of current knowledge.

*[There is] a great need for more and better research into what schools should do improve literacy among English language learners. Beyond the obvious need for more studies and more replications further evaluating promising instructional innovations, there is a need for a more sophisticated approach to research [which takes into account that] educational outcomes may be influenced by individual, sociocultural, cross-linguistic, and developmental factors. **What is needed is an ambitious research agenda¹** that pursues the development and systematic analysis of the effectiveness of instructional routines to foster success within the context of these individual and contextual factors that moderate and mediate literacy learning outcomes for language minority students² (August & Shanahan, 2006a, p. 361).*

This quote from the National Literacy Panel's report (August & Shanahan, 2006c) sets the stage for what we hope will become one part of the "ambitious research agenda" the panel calls for. In February 2006, a workshop was convened by the organizations listed above. Participants were provided with a background document, "Promoting Literacy for Language-Minority Students: A Review of the Research on Best Practices," written by Dr. Diane August of the Center for Applied Linguistics, which synthesized research literature addressing five key questions:

¹ Emphasis added.

² In this document, we deal mainly with English-language learners. In this quote, the panel uses both terms. We accept and adopt their definitions: ELL is used to refer to student acquiring English as a second language; language minority refers to individuals from homes where a language other than the societal language is actively used (August & Shanahan, 2006b, p. 2).

1. What do we know about how to develop literacy in language-minority students; and in this process, what are the adaptations to instruction designed for monolingual speakers that appear to be important for language-minority students?
2. How have teachers provided differentiated instruction for second-language learners, including newcomers (very recent immigrants)?
3. What have we learned about effectively building literacy in language-minority students with learning disabilities?
4. What efforts have been made to develop students' oral language proficiency in the context of developing their second-language literacy?
5. What do we know about effective school-wide efforts to improve literacy outcomes for language-minority students (e.g., coordination, parent involvement)?

That paper will be made available in the near future. It served as the basis for discussion of existing knowledge and was the foundation for identifying gaps and research needed in the area of literacy education for English-language learners. One thing that was quite clear from that document is that there is insufficient research to synthesize across studies to fully and clearly address these questions. What follows is a set of research questions recommended for possible further investigation by the cosponsors of the workshop. It is drawn from the issues and research questions that emanated from the conference as well as from the 2004 TESOL Research Agenda (TESOL, 2004) and the report of the National Literacy Panel (NLP; August & Shanahan, 2006a)³. (Note that an additional useful resource on current information about educating ELL students is Genesee, Lindholm-Leary, Saunders, & Christian, 2006.)

A Framework for Considering the Research on ELL Students

The research questions posed in the synthesis document and those delineated here that exemplify the types of research needed are linked to a broad conceptual framework regarding the development of literacy in language-minority children and youth. This framework parallels that of the National Literacy Panel on Language Minority Children and Youth (August & Shanahan, 2006c) and considers second-language literacy development within a multidimensional, dynamic framework. Development of language and literacy is influenced by various factors (phonological processes, oral proficiency, underlying cognitive processes, intelligence, and educational background), which vary among individuals and which interact in complex ways.

Literacy development entails cumulative, hierarchical processes in dynamic relationships, and these relationships change over time with age, learning, instruction, motivation, etc. For ELL students there are additional intervening influences relating to first-language proficiency and first-language literacy, and the nature of the first and second languages. Another important factor influencing language and literacy development in ELLs is the sociocultural context created by families, neighborhoods, classrooms and schools, and societies. For many language-minority students, sociocultural context also includes poverty, attendance in under-funded schools, low social status accorded to certain ethnic and immigrant groups, familial stress, and incompatibility between

³ Specific research issues and questions for this agenda are drawn from Chapter 13, Instructional Approaches and Professional Development. All of the research recommendations of that document are recommended reading for researchers interested in the issues affecting literacy and learning in ELL students.

home and school environments (e.g., language differences). The design and development of curricula and instructional programs should also be important considerations. Finally, developing literacy in a second language depends heavily on the amount and quality of the schooling provided, which are a function of what is taught, the methods used to teach it, the intensity of instruction, how well and appropriately learning is monitored, and the level of teacher preparation.

ELL students are a heterogeneous group, and research questions and designs that recognize this will be more productive. In addition, it is important to avoid the faulty premise that all ELL students are “at risk” simply by virtue of their being ELLs. At the same time, this must be balanced with the importance of recognizing that some ELLs, like all other groups of children, *will* be children with special needs, such as attention problems, learning disabilities, and other learning challenges.

Overall, instruction that integrates oral language, reading, writing, and content area learning is crucial for all students, but requires perhaps even more explicit attention in teaching ELL students, where the temptation may be to teach oral language first, then tackle reading and writing, and finally content. Developing oral language as well as reading and writing requires having content to talk about; thus, the integration of these areas of instruction and learning should be an inherent part of every classroom containing ELL students. Moreover, the goal of instruction is the acquisition of content area knowledge, and thus developing oral language proficiency in the context of content area instruction is crucial.

Overarching Foundational Issues

From the discussions of the 2007 workshop emerged several overarching questions or issues, some of which have been or are being partially addressed in ongoing research, but all of which are of continuing importance. It is clear that research is needed that will address literacy development of ELL students from early childhood through young adulthood. A key goal of that research is to understand the development of reading in a second language (English), its precursors in early childhood, how we measure progress and what factors influence it, and to design, develop, and test instructional interventions. Basic, foundational research, applied research, and research on policies that drive successful program implementation are crucial in developing a knowledge base that will enable teacher and student success. Overarching issues or themes are listed here, and greater specification is provided in the sections that follow:

- All research on ELLs, whether developmental, longitudinal, experimental, or qualitative, should identify and use theoretical or conceptual frameworks that are clearly articulated and within which the findings are reported. This will allow the research to be situated within a broader and more empirically defensible context.
- Measurement issues are important. The clear definition of key constructs and the development of tools and approaches to measure those constructs are foundational to robust research on ELL literacy. Tools are needed that can adequately assess language, context, and content.
- Multivariate research on ELL students is needed that takes context into account. That is, the research should consider multiple factors (variables) that might be related to the outcomes of interest; thus, the research should be able to more accurately or fully explain or model complex problems that are not sufficiently well explained using a single variable (univariate) approach. Context should include home, school, and community social, linguistic, and

instructional environments, and these should be considered in both designs and analyses, in order to deal with the multiple factors that influence language and literacy development.

- Research is needed in several areas using various methods. Research on development, intervention, assessment, cultural influences, and teacher professional development will require that a variety of methods be used, and some studies should employ mixed methods if that will provide information to best address the questions posed.
- Research should make use of existing data sets as well as new data collection to ensure that we learn as much as possible from studies already conducted and build on them in new research efforts.
- Research on ELL student literacy has experienced a dramatic increase over the past decade, but the majority of this work has focused on ELLs who are native speakers of Spanish. While it is clear that the most frequently spoken language in the United States after English is Spanish, there are a number of other first languages represented in U.S. classrooms, and research must also address these students.
- Research on district, state and federal policies regarding the education of ELL students is needed. States are developing databases that could be used for research purposes. It is important to explore what types of state, district, and school policies and programs are especially successful in developing English language proficiency and literacy across the content areas in ELL students.

The quality of research design must be improved, and rigorous methods applied.

In their research recommendations, both the National Literacy Panel and TESOL call for rigorous research methods and highlight the need for longitudinal studies, as did our workshop participants. These groups and documents also highlight the need to fully describe the students being studied and the contexts in which they are studied and in which they function—too much of previous research has insufficiently described the learners, their contexts, and the nature of instruction they received. As noted in the themes above, research of all types is needed. The following quote from the National Research Council report, *Scientific Research in Education*, eloquently summarizes the importance of the research methods used:

The design of a study (e.g., randomized experiment, ethnography, multiwave survey) does not itself make it scientific. However, if the design directly addresses a question that can be addressed empirically, is linked to prior research and relevant theory, is competently implemented in context, logically links the findings to interpretation ruling out counterinterpretations, and is made accessible to scientific scrutiny, it could then be considered scientific. That is: Is there a clear set of questions underlying the design? Are the methods appropriate to answer the questions and rule out competing answers? Does the study take previous research into account? Is there a conceptual basis? Are data collected in light of local conditions and analyzed systematically? Is the study clearly described and made available for criticism? The more closely aligned it is with these principles, the higher the quality of the scientific study. And the particular features of education require that the research process be explicitly designed to anticipate the implications of these features and to model and plan accordingly. (Shavelson & Towne, 2002, p. 97).

Research is needed on the typical development of ELL literacy.

Methods

To best learn about typical development, an optimal approach would be large-scale, normative longitudinal cohort studies to determine learning trajectories and benchmarks in various literacy and language learning abilities and their interrelationships and predictive values. Correlational studies are also needed to examine the relationship between precursors and outcomes and to examine the links between such things as oral language, reading, and writing skills. Between-group designs have been used to compare ELL students and native English speakers on indices of language and literacy. In addition, secondary data analysis can be informative about ELL literacy development. Some secondary analyses have been done using nationally representative samples, such as the Early Childhood Longitudinal Studies (ECLS) data set (National Task Force on Early Childhood Education for Hispanics, 2007), but more can likely be learned from such data sets. Studies of ELL development should include a variety of first-language subgroups. The 2004 TESOL Research Agenda notes that comparative international research would enable us to examine English-language learning “from a global perspective and examine different but perhaps complementary ways of achieving the same goals and to interrogate our own assumptions and prejudices, to ask why problems in one context are not occurring in another” (p. 3).

Key questions on literacy development

Typical learning trajectories in students learning a second language—The typical development of ELL students is an important and foundational area in which more work is needed, and upon which instruction and intervention will build. Literacy involves reading, writing, and oral language (listening and speaking). Basic work on the cognitive aspects of learning in ELL students is crucial to this effort, and both short and long-term studies are needed, using both longitudinal and cross-section designs, among others.

- **Reading**—Research is needed on the typical development, over time, of ELL students. We need to know, for example, what is the typical trajectory of language and literacy development for various language-minority groups in both the first language (L1) and English as a second language (L2). Also, how is this affected by demographic factors, family and community language and literacy practices, students’ educational history, social context, and the instructional context, including teacher characteristics and expectations, learning tasks, and research on the instructional environment? What factors influence both student and teacher motivation and attitudes, and how are motivation and attitudes related to student and teacher performance (and their dual expectations)? In addition, it will be important to know what elements can accelerate learning and must or should be included in the design and development of curricula and instructional programs for ELL students.
- **Writing**—We also need to study the development of written abilities in ELL students. What is the typical trajectory of writing development from L1 to English? The first question is whether the native language writing system influences writing development in English. If so, how? For example, how does the nature of the native language alphabet/writing system affect the English writing development of ELLs? How does writing style and structure of L1, which can vary from language to

language, impact ELL students' development of writing in English? How does written language in L2 mediate the development of oral language in L2 across social contexts in schooling?

- **Oral Language**—It is important to understand the relationship between oral language proficiency, literacy, and content knowledge. Research on oral language development in L2 is important in its own right, but it is also important to study how literacy in L2 is impacted by level of oral language proficiency as both develop over time and what can be done to accelerate those processes. Are there optimal transition times for introducing second or other languages in oral language and literacy, and, if so, what factors determine or influence this timing? How do entering levels of L1 and L2 oral language and literacy proficiencies interact with instructional variables (such as attention to specific components of literacy and amount of teacher-directed vs. student-centered instruction)? What social and academic uses of oral and written language in L1 and L2 promote and enhance the development of literacy in both languages?
- **Cognitive processes in second-language literacy**—We must better understand the cognitive processes that underlie second-language literacy development, the role of the primary language inputs in second-language acquisition, and the typical paths of development of language and literacy in ELL students. Such research will be complex, since students change status from ELL to not ELL over time, schools change programs for ELLs rapidly, and student mobility is high. Although these factors make longitudinal and developmental studies challenging and costly, such studies are crucially important.
- **Student literacy learning at varying ages and levels of oral language proficiency**—How do students learn reading comprehension strategies over time as they develop their English language proficiency, and what roles do age and experience play? Which strategies do beginners learn easily and use; which do advanced students rely on to help them develop literacy skills in English? What are the particular challenges and strengths of adolescent language/literacy learners, and what are the best teaching practices for developing academic language proficiencies in ELL students across different secondary school content areas? What kind of language and literacy experiences do young bilinguals and ELLs need in both L1 and L2 at the preschool level that would provide a solid basis for successful literacy development in the early elementary grades and in later grades? How have students fared who were once classified as limited English proficient in the school? New prospective longitudinal research as well as work on extant data sets should examine the development of literacy in these children as well as effective instructional contexts and approaches.

Finally, in considering research on typical development in ELL students, it is important to hold in mind certain caveats. First, it will be important to have baseline knowledge of the students' L1 literacy levels in order to understand what is a typical development trajectory; what is typical for a literate ELL may be different from what's typical for a non-literate ELL. Second, while examining state databases may be helpful in gaining information on typical trajectories, it is important to remember in designing and conducting such studies that the ability to conduct cross-state analyses will be limited by various factors, including the variety of tests that are used by different states, the differing cut-off scores used by states who use the same tests, and the varying definitions of ELL status (e.g., limited English proficient vs. ELL vs. former ELL). Third, the use of common measures

or a common set of core measures of literacy components across studies would greatly facilitate the development of comparable data and convergent evidence on which to base future research and practice guidance.

Research on instruction and intervention for ELL literacy is needed.

Designing and testing effective instructional approaches and interventions for ELL students are acute research needs identified for this population. Existing approaches whose effectiveness have not yet been demonstrated with ELL students should be studied, as well as new approaches and interventions based on information from typical learning trajectories and response to instructional approaches. In addition, once information on typical development has been obtained, it will be important to develop and test new interventions that might accelerate that learning process for ELLs.

Methods

The NLP advocates studying student learning and instruction in depth, in sufficient numbers to draw valid conclusions, and examining change over time (longitudinal), but with attention to individual and subgroup variation. Research addressing the effectiveness of instructional approaches or interventions, because it addresses the “what works” question, requires experimental or quasi-experimental methods. However, other research methods are also important to help answer questions regarding how and why these approaches work, for which children, and under what conditions. Qualitative methods such as ethnographies and case studies can provide careful descriptions of the context in which instruction or intervention was delivered and changes in student and teacher behaviors. Where possible, mixed-method designs should be used, so that both data and descriptions can help us begin to understand why and how these approaches work and to generate additional hypotheses.

Key questions on instruction and intervention

- Research is needed that addresses how quality instruction correlates with student academic achievement. For example, how and how much do the ways that a teacher teaches vocabulary to ELL students impact the types of vocabulary that the students use and master in both reading and writing? Which comprehension strategies or skills do teachers model and ask students to apply, how well do students then apply them, and what effect does that have on student achievement? Research has demonstrated that ELL students generally master decoding and fluency fairly quickly and well, but the areas of vocabulary, background knowledge, and reading comprehension have not been well studied. It is essential that research be conducted on how best to teach vocabulary and instructional strategies for supporting the development of reading comprehension. The most effective methods for teaching writing to ELL students at various grade levels and levels of language and reading proficiency and the interaction between reading and writing ability in ELL students also merit research attention.
- While there is some information from program evaluations and reports on how students in fare in “newcomer” (recent immigrant) programs, research on interventions that serve newcomer beginning level ELLs (especially at the secondary level) is needed to understand expected gains and to design and test strategies for accelerating learning and literacy.

- The identification and understanding of learning disabilities are important ongoing focuses for research, and rely on foundational, basic research in memory, the role of executive function, and other cognitive aspects of learning in bilingual and second-language learning students.
- Behavioral studies of learning and learning disabilities should be linked to work on the neurobiological and genetic bases of learning disabilities in ELL and bilingual students.
- In the chapter on instruction and professional development, (August & Shanahan, 2006a), the NLP calls for research that addresses the learning of students with special needs and learners with different levels of content knowledge, age levels, and language backgrounds. The authors state, “Explicit studies of what works with different types of learners...will help validate the correlational evidence and enhance our understanding of how to teach all language-minority students to read and write most effectively” (p. 363).
- Intervention research is needed at all ages and for a variety of situations—prevention of reading difficulties in younger students and remediation/intervention in school-age students from elementary through high school. This should include work on how to provide appropriate instruction for students who are not making satisfactory progress, as well as targeted intensive instruction to accelerate literacy development in students who may be entering the system at later educational points.

Assessment/measurement of student abilities is key to both research and the documentation of student progress.

Methods

The NLP, in chapter 19, “Synthesis: Language and Literacy Assessment” (Garcia, McKoon, & August, 2006), makes three major overarching recommendations for future research on assessment: 1) incorporate expertise from multiple disciplines (linguistics, cognitive psychology, education, and psychometrics); 2) in publications, report enough information about the measures used so that other researchers can replicate the work; and 3) include at least some measures that have been used by others in order to contribute to a systematic, progressive accumulation of evidence. In our workshop, participants also recognized the pivotal importance of assessment and raised several questions or sets of questions related to assessment and learning or instruction, some of which parallel issues raised in the TESOL agenda and the recommendations of the NLP.

- **Measurement approaches**--What measurement approaches are optimal among which groups of students for what purposes? We must also ask for what purposes current assessments are valid and what are the limits on the accuracy of those inferences for ELL students. In general, it is important to explore whether there are basic principles that should be followed generally for assessing language-minority students, and, if so, under what conditions, for which populations, and for which assessment purposes these principles would apply. Until we have addressed the issue of how language underlies assessment and how best to develop new content area measures for ELL students, we need research on how accommodations can be used to best advantage to assist student learning and assessment. For example, do some accommodations work better for students at different levels of language proficiency? Finally,

it will be important to explore how technology might be used as an accommodation for ELL students and whether there are other new accommodations that might be developed that would assist student learning and more accurate assessment.

- **What is being measured**—There is a need for measures in various areas, including language proficiency and various aspects of reading (including reading comprehension and comprehension within specific content areas), as well as content knowledge itself. What measures of oral language proficiency exist that assess typical oral conversational language, what instruments measure academic or classroom language, and what additional measures are needed? For one of the few sources of information on language proficiency testing, see Abedi (forthcoming). An important area is the development of new language assessments that assess students' language proficiency and afford accurate inferences about students' ability to work independently, to learn in L2 in a way that is comparable to native L2 speakers with similar proficiency in that language. This will require a critical rethinking of what it means to be proficient in one's first language and an acknowledgement that not all native speakers of a language are equally proficient in that language (Francis, Rivera & August, forthcoming). An issue that is important to explore—one that is relevant not only to ELL students but to all students—is how conversational and academic language relate and the implications for language and literacy development. Another issue that is poorly understood is the relationship among existing measures of language and literacy for ELLs. What constructs do these instruments measure, what are their psychometric properties, and how often and under what conditions are or should these different measures be used?
- **Measures to inform or differentiate instruction**--As noted above, there is a crucial need for measures that teachers can use to differentiate instruction within the classroom. How do teachers use the assessment information currently available to inform their instruction of ELLs, and what measures or types of measures do teachers need both to inform instruction and to document growth in their ELL students? How do teacher judgments match with more formal assessments? How can the results of curriculum-based assessments in L2 be used to advance the L2 learning of students with different levels of L1 proficiency? How can the results of assessments of oral and reading proficiency in L1 inform L2 instruction? How useful are existing measures of language and literacy for use with ELLs? Can existing measures of reading comprehension be adequately adapted for use with ELLs?
- **Context and use of measurement**—What are the best measurement tools and techniques for assessment in various contexts and for various purposes? For example, how can we best assess the process of reading and writing in a variety of social contexts in and out of school? What are the optimal assessment tools and strategies to identify ELL students with special educational needs, distinguishing between language-learning proficiency issues and learning disabilities, and what measures are optimal for progress monitoring and tailoring of instruction for these students? Which diagnostic assessment approaches can provide the best information about ELLs' L1 and L2 literacy and content knowledge for appropriate placement and instruction? How can decisions be made as to what skills or content areas to assess and in what languages?

Research on accommodations in assessment

A recent report that meta-analyzed existing research on accommodations for ELL student assessments (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006) indicated that the only accommodation described in available studies to assist ELL students in assessments is providing English dictionaries and glossaries. This report calls for additional work on effective accommodations for making content and assessments more accessible to ELL students; one key to assessing content knowledge is ensuring instruction that imparts that content. If students do not possess the content knowledge being assessed, the assessments will serve little purpose. Research is also needed on how to create assessments that will provide students with access to the content in the assessment.

Key questions for assessment research

Clearly defining key constructs and developing tools and approaches to measure those constructs are foundational to informative research on ELL literacy. Measurement should comprise large-scale assessments as well as more local measures to monitor student progress in order to provide for differentiation of instruction.

- Research is needed to determine the level of language proficiency required for content area assessments to function equivalently for ELL and non-ELL students; it would significantly advance the area of ELL assessment if we understood how language undergirds performance on tests of all types and how construct-irrelevant variance associated with language can be controlled, predicted, or eliminated in content area assessment.
- The TESOL research agenda points out that more research is needed on the impact of assessment design and implementation on individual student learning and on teaching patterns.
- There is an ongoing need for development of new measures of both reading comprehension and content area knowledge for ELL students in English and in a variety of languages other than English when instruction is also conducted in those languages (e.g., in dual language programs). This will require clearly defined or delineated constructs to be measured. The norming of existing measures on ELL students, where no such normative data exist, is also important.
- Research is needed on how best to help teachers become expert in using those measures that serve well for progress monitoring and the data they generate, in order to differentiate instruction to maximize student learning.
- One acute research need on a practical level is the need for quick, easy-to-use formative assessments that teachers can use to assess oral language proficiency, reading, and writing in order to appropriately differentiate instruction.

Community, home and school cultures and their influence on student learning and instruction must be included in research on ELL students

Methods

Culture and first language are intricately linked; both can exert influences on instruction and student learning. The environment in which a student lives and grows, both in school and out of school, while a worthy area of research investigation in its own right, also must be considered in research on language and literacy development. In the NLP section on sociocultural contexts and literacy development, the authors report studies that used a variety of research methods: correlational, comparative, ethnographic, observational, and case studies. They report a broad definition of outcomes: "Outcomes...include observational indicators, ethnographic descriptions, examples/analyses of student products, motivational measures, participation or engagement measures, ...self- or teacher-report, in addition to conventional or standardized measures" (August & Shanahan, 2006, p. 255). Thus, as is the case in each major area where research is needed, the methods should match the questions posed, and where possible a mixture of methods may provide the most comprehensive, in-depth information about the issues and questions being studied. It is important that these studies include the wide diversity of languages represented by ELL students in the United States.

Key questions on community, home and school cultures and literacy

- How does living in a neighborhood where the signage, newspapers, and magazines available are all in a language other than English affect a student's literacy and language abilities in both first and second languages? Further, what is the impact of family, community, and peer culture on students' motivation to develop oral proficiency and literacy in L2 and/or to maintain these in L1?
- How do L1 and L2 oral language and literacy practices outside of school relate to long-term performance (oral and written) in L1 and L2 in school (controlling for instructional approach at a general level)? How do peer/youth cultures shape L2 language and literacy development and/or L1 maintenance?
- What are the social, psychological, and educational impacts on ELL students of using an indigenous or heritage language as the language of instruction and of the development of literacy in indigenous or heritage languages?
- What is the relationship between students' interests and identities and their motivation to learn language and literacy across different contexts in and out of school? What role does student motivation play in literacy development among learners (and what are the relative differences related to extrinsic vs. intrinsic motivation across age groups)? How can these characteristics be incorporated into interventions that scaffold positive language, literacy, and identity development across different social contexts (i.e., in school, home, and neighborhood/community)?
- How do popular cultural texts (local newspapers, magazines, etc.) and out-of-school literacy practices (e.g., Web searching, blogging/chat/IM-ing, text messaging, listening to music) shape L2 language and literacy development and/or L1 maintenance? As part of this, in what ways do hybrid language/literacy practices emerge, and what is the impact of those hybrid practices on youth learning and/or maintenance of first languages/literacies?

- How does participation in extracurricular/after-school activities, such as sports, school clubs, part-time jobs, and after-school tutoring programs affect language and literacy learning?
- What are the expectations that teachers and other adults hold with regard to ELL students, including the diverse linguistic and cultural subgroups that ELL students represent, and how do these affect student learning and the instruction these students receive?
- What is the efficacy of instructional routines that purport to be culturally responsive? Do students perform better in a classroom milieu that is more closely aligned with their cultural experiences, and in what areas (e.g., language and literacy abilities, overall academic achievement, peer relations, social/emotional development)?

Teacher preparedness for instructing ELL students also merits research attention.

Methods

Whether studying student learning in response to instruction/intervention, or teacher learning and development in response to professional development or teacher preparation, a variety of research methods can be used. There is a need for multivariate, multilevel studies of the context, content, and delivery of professional development. In addition, there is room for many studies within these multiple facets of professional development to address myriad questions and issues, including but not limited to those that follow.

Key questions on teacher preparedness for instructing ELL students

Teacher development for all teachers, with the goals of supporting, teaching, and assessing ELL students, is needed.

- There are various issues that relate to teachers and the specific expertise that might be required or at least desirable for teaching ELL students. What do classroom teachers need to know about the English language and language instruction that can enhance the learning of ELL students?
- What types of teacher development are needed to better enable content area teachers to optimally instruct the ELL students in their classes?
- What are the optimal (complementary) roles of non-native and native-English speaking teachers, and what should be included in teacher preparation that would enable them to serve in these roles? (adapted from the TESOL agenda).
- How are teacher attitudes, theories, knowledge, and beliefs about L1 and L2 learning and development reflected in instructional practice? What are the best methods for developing heightened cultural awareness and sensitivity among teachers, and what impact does such awareness and sensitivity have on instruction and student learning?

- Do standards used to inform instruction actually represent developmental patterns associated with changes in competence, and do teachers and administrators who must implement the standards share an understanding of their meaning (adapted from the TESOL agenda)?
- How can the relationship between teachers of ELL students and researchers be most mutually beneficial? The TESOL agenda highlights the need for additional research on how teachers perceive research, its relevance to their teaching, and which factors promote or hinder productive relationships between researchers and practitioners.
- What role does motivation play—among both students and teachers—in the success of instructional programs and particular teaching practices?
- How well and under what conditions does professional development transfer to the classroom (teachers' instructional behaviors), and what is the impact on students (using both formative and summative assessments)?
- The cost-effectiveness of various types of professional development should also be addressed.

Policy review and analysis is important.

A key issue is how to develop (and assess or evaluate) school and district policies and practices that foster the development of high-level academic knowledge and skills in ELL students. Programs that are implemented in schools are in large part driven by the policies that are in place. It will be important, therefore, to develop a policy culture that values rigorous experimentation before policies are implemented. Policies should be studied and then put in place based on evidence rather than simply being developed and implemented, with evaluation coming afterward.

- Research is needed to examine what policies are in place in school districts that are (and are not) able to successfully move ELLs towards academic literacy and content achievement, including how they accommodate students with diverse backgrounds.
- Greater detail and clear, rigorous criteria are needed in the identification and description of successful schools. Currently existing data, in state or district data bases, can be used to study policies and programs being implemented on a school- or district-wide basis. NCLB data may be useful in examining which school-wide or district-wide practices have been successful in supporting the development of English literacy in ELL students.

Conclusions

In conclusion, there is clearly a pressing need for additional research that will provide information to inform both practice and policy. There is a dearth of research on instructional approaches and interventions for ELL students. What is needed in addition to high-quality instruction? What adjustments must be made in order to produce ELL students who become successful readers and writers? What strategies will effectively enable teachers to differentiate instruction within classes? How can we best assess students, and how can we develop accessible assessments? Can we develop rapid on-the-run formative assessments for teachers to use to differentiate instruction? What roles do culture and home, school and community contexts play? How can we use technology successfully to accelerate the development of academic language and literacy?

While the many questions raised in this document are important, clearly the listing is neither exhaustive nor comprehensive. Rather, it represents a sampling of what must be accomplished if our schools and teachers are to be able, using evidence-based practice, to effectively teach all of our students, including ELL students, to read and succeed in education and later life. Research and its translation to practice are ongoing, iterative endeavors. We began this document with a quote from the report of the NLP, the most comprehensive reference currently available on what we know and need to know about ELL students. We end with another quote from the same source, which highlights the importance of research as a continuing effort that will inform the best practices we can provide ELL students.

We need to use research findings to craft new theories and inform various paradigms that in turn can be used to inform both future research and practice. Theory plays an important role in practice because findings from one study, or even a collection of studies, will never be sufficient to address the unique circumstances of any new educational situation. Educators need to understand relevant theories if they are to respond effectively to the unique circumstances they confront in meeting the diverse needs of students in their classrooms. (August & Shanahan, 2006a, p. 361).

This quote highlights the importance of theory. We also wish in closing to highlight the importance of rigorous research methods and of interdisciplinary collaboration. Indeed, the workshop out of which this document grew represents such collaboration—and the organizations that cosponsored the workshop represent several of the disciplines that must work together in designing, conducting, and reporting research on ELL students.

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Please note that working as a participant or on the planning committee represents a wide- ranging consensus; no one individual or organization has been asked to endorse the separate observations or recommendations. Rather, they have been asked if this a good set of questions and an accurate reflection of current knowledge.

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